

Remarks

Reconsideration of this application as amended is respectfully requested.

Claims 1-4, 7-8, 12-15, 20-22, 24-26, and 30-31 stand rejected under 35 U.S.C. 102(b) as being unpatentable over U.S. Patent No. 5,603,020 of *Hashimoto et al.* ("*Hashimoto*").

Claims 5-6, 23, and 35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Hashimoto* and U.S. Patent No. 5,761,507 of *Govett* ("*Govett*").

Claims 9 and 27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Hashimoto* and U.S. Patent No. 5,790,853 of *Nomura et al.* ("*Nomura*").

Claims 10-11, 16-19, 28-29, and 32-34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Hashimoto* and U.S. Patent No. 5,623,600 of *Ji et al.* ("*Ji*").

The Examiner has rejected claims 1-4, 7-8, 12-15, 20-22, 24-26, and 30-31 under 35 U.S.C. § 102(b) as being unpatentable over *Hashimoto*. Applicants respectfully submit, however, that amended claim 1 is not anticipated by *Hashimoto*. Amended claim 1 is a software system that includes the limitations

a set of available resources;
name space which corresponds to a task
executing in the software system, the name space for
holding a flexible binding that binds a local name
used by the task to one or more of the available
resources using a description of a desired resource;
resource mediator that obtains a message from
the task which contains the local name and in
response the resource mediator identifies a resource
handler task for handling the message by resolving
the local name using the flexible binding.
(Amended claim 1) (Emphasis added).

Hashimoto does not disclose a software system with a name space that binds a local name to available resources using a description of a desired resource as claimed in amended claim 1. Instead, *Hashimoto* discloses a software

system that binds a file name to a device and inode number for where the file is stored. (*Hashimoto*, col. 10, lines 25-28). Rather than bind a local name to available resources using a description of a desired resource as claimed in amended claim 1, *Hashimoto* states that

In the file opening processing, a search is made of file system 3 for a file having a specified name and a directory directly pointing to that file...Thereby, their own device and i node numbers are obtained.

(*Hashimoto*, col. 10, lines 25-28) (Emphasis added).

Applicants submit that device and inode numbers for a file are not a description of a desired resource as claimed in amended claim 1.

In addition, amended claim 1 includes the limitations

a set of available resources;
name space which corresponds to a task executing in the software system, the name space for holding a flexible binding that binds a local name used by the task to one or more of the available resources using a description of a desired resource;

resource mediator that obtains a message from the task which contains the local name and in response the resource mediator identifies a resource handler task for handling the message by resolving the local name using the flexible binding.

(Amended claim 1) (Emphasis added).

Hashimoto does not disclose a resource mediator that identifies a resource handler task for handling a message from a task by resolving the local name used by the task using a flexible binding as claimed in amended claim 1.

It is therefore respectfully submitted that the software system of amended claim 1 having a name space that binds a local name to available resources using a description of a desired resource and having a resource mediator that identifies a resource handler task for handling a message from a task by resolving the local name using a flexible binding is not anticipated by the system

of *Hashimoto* which binds a name of a file to a device and inode number.

Given that claims 2-21 depended from amended claim 1, it is also submitted that claims 2-21 are not anticipated by *Hashimoto*.

It is further submitted that amended claim 22 is not anticipated by *Hashimoto*. Amended claim 22 includes limitations similar to the limitations in amended claim 1 including that a name space that binds a local name used by a task to available resources using a description of a desired resource and identifying a resource handler task for handling a message using a flexible binding. Therefore, the remarks stated above with respect to amended claim 1 also apply to amended claim 22.

Given that claims 23-35 depended from amended claim 22, it is submitted that claims 23-35 are not anticipated by *Hashimoto*.

The Examiner has rejected claims 5-6, 23, and 35 under 35 U.S.C. 103(a) as being unpatentable over *Hashimoto* and *Govett*. Applicants submit, however, that claims 5-6, 23, and 35 are not obvious in view of *Hashimoto* and *Govett*. Claims 5-6 and 23, 35 depend from amended claims 1 and 22. It is submitted that claims 5-6 and 23, 35 are not obvious in view of *Hashimoto* and *Govett* because neither *Hashimoto* or *Govett* disclose or suggest a name space that binds a local name used by a task to available resources using a description of a desired resource or identifying a resource handler task for handling a message using a flexible binding as claimed in amended claims 1 and 22. Instead, *Govett* discloses a transaction manager for client-server communication (*Govett*, col. 3, lines 18-63).

The Examiner has rejected claims 9 and 27 under 35 U.S.C. 103(a) as being unpatentable over *Hashimoto* and *Nomura*. It is submitted that claims 9 and 27 are not

obvious in view of *Hashimoto* and *Nomura* because claims 9 and 27 depend from amended claims 1 and 22. Applicants submit that neither *Hashimoto* or *Nomura* disclose or suggest a name space that binds a local name used by a task to available resources using a description of a desired resource or identifying a resource handler task for handling a message using a flexible binding as claimed in amended claims 1 and 22. Instead, *Nomura* discloses a workspace management system that maintains resource reference information for placing icons representing resources in particular areas of a display (*Nomura*, col. 10, lines 47-67).

The Examiner has rejected claims 10-11, 16-19, 28-29, and 32-34 under 35 U.S.C. 103(a) as being unpatentable over *Hashimoto* and *Ji*. Claims 10-11, 16-19 and 28-29, 32-34 depend from amended claims 1 and 22. Applicants submit that claims 10-11, 16-19 and 28-29, 32-34 are not obvious because neither *Hashimoto* or *Ji* disclose or suggest a name space that binds a local name used by a task to available resources using a description of a desired resource or identifying a resource handler task for handling a message using a flexible binding as claimed in amended claims 1 and 22. Instead, *Ji* discloses a system with virus detection and removal during file transfer in a network (*Ji*, col. 2, lines 39-44).

It is respectfully submitted that in view of the amendments and arguments set forth above, the applicable objections and rejections have been overcome.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 08-2025 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

Date: 8-26-02

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Version with Markings to Show Changes Made

1. A software system, comprising:

a set of available resources;

[task-specific] name space which corresponds to a task executing in the software system, the [task-specific] name space for holding a flexible binding that binds a [task-specific] local name used by the task to [refer to a desired resource to a set of] one or more of the available resources [of the computer system and to] using a [set of information that describes] description of a [the] desired resource;

resource mediator that obtains a message from the task which contains the [task-specific] local name [such that] and in response the resource mediator identifies a resource handler task for handling the message [the desired resource] by resolving the [task-specific] local name using the flexible binding.

2. The software system of claim 1, wherein the flexible binding includes a reference to a resource descriptor in a repository of the software system for [each of the] one or more of the available resources.

3. The software system of claim 2, wherein the flexible binding includes a binding-type indicator that informs the resource mediator of whether to use the references or the [information that describes] description of the desired resource [or a combination thereof] when resolving the [task-specific] local name.

4. The software system of claim 2, wherein the message includes a binding-type indicator that informs the

resource mediator of whether to use the references or the [information that describes] description of the desired resource or a combination thereof when resolving the [task-specific] local name.

5. The software system of claim 4, wherein the binding-type indicator causes the resource mediator to use a tight binding when resolving the [task-specific] local name such that the resource mediator uses the references to resolve the [task-specific] local name.

6. The software system of claim 5, wherein the binding-type indicator causes the resource mediator to use the tight binding to resolve the [task-specific] local name if any of the references correspond to [an] one of available resources and to use a flexible binding otherwise such that the flexible binding is based on the [information that describes] description of the desired resource.

7. The software system of claim 4, wherein the binding-type indicator causes the resource mediator to use a flexible binding when resolving the [task-specific] local name by searching the repository for a resource descriptor having a set of attributes that match the [information that describes] description of the desired resource.

8. The software system of claim 4, wherein the binding-type indicator causes the resource mediator to use a flexible binding to update the references when resolving the [task-specific] local name by searching the repository for a resource descriptor having a set of attributes that match the [information that describes] description of the desired resource.

9. The software system of claim 4, wherein the binding-type indicator causes the resource mediator to remove any of the references that correspond to resources that are not currently available when resolving a [task-specific] local name.

12. The software system of claim 1, wherein the message includes a primary resource field that holds the [task-specific] local name for the desired resource and a set of additional resource fields each of which holds a [task-specific] local name that the task uses to refer to an additional resource for which a flexible binding is to be delivered to the resource handler task.

13. The software system of claim 12, wherein the primary resource field and each additional resource field includes a field for holding a [task-specific] local name which the task uses to refer to a [task-specific] name space to be used to resolve the corresponding [task-specific] local names.

14. The software system of claim 12, wherein the resource handler uses a default name space associated with the task to resolve the [task-specific] local names in the primary resource and additional resource fields.

15. The software system of claim 12, wherein the primary resource field includes a binding-type indicator that informs the resource mediator of how to resolve the [task-specific] local name in the primary resource field.

19. The software system of claim 16, wherein the [task-specific] name space is arranged as a structured name space with an ordered list of frames.

20. The software system of claim 1, wherein the message specifies a repository view that holds a subset of resource descriptors contained in a repository of the software system and the flexible binding includes a reference to a resource descriptor in the repository view for each of the one or more available resources.

22. A method for providing [task-specific] flexible bindings in a software system, comprising the steps of:
creating a [task-specific] name space which corresponds to a task executing in the software system;
writing a flexible binding into the [task-specific] name space that binds a [task-specific] local name used by the task [to refer to a desired resource] to [a set of] one or more of a set of available resources of the computer system [and to a set of information that describes the] using a description of a desired resource;
obtaining a message from the task which contains the [task-specific] local name and in response identifying a resource handler task for handling the message [the desired resource] by resolving the [task-specific] local name using the flexible binding.

23. The method of claim 22, wherein the step of resolving the [task-specific] local name comprises the step of resolving the [task-specific] local name using a reference to a resource descriptor in a repository of the software system for each of the one or more available resources which is included in the flexible binding in response to a binding-type indicator in the message that specifies a tight binding.

24. The method of claim 22, wherein the step of resolving the [task-specific] local name comprises the steps of:

resolving the [task-specific] local name using a reference to a resource descriptor in a repository of the software system for each of the one or more available resources [in the flexible binding] if any of the references [correspond to an available resource] are included in the flexible binding;

resolving the [task-specific] local name using the [information that describes] description of the desired resource if none of the references [correspond to an available resource] are included in the flexible binding.

25. The method of claim 22, wherein the step of resolving the [task-specific] local name comprises the step of searching a repository in the software system for a resource descriptor having a set of attributes that match the [information that describes] description of the desired resource in response to a binding-type indicator in the message that specifies a flexible binding.

26. The method of claim 22, wherein the step of resolving the [task-specific] local name comprises the steps of:

searching a repository in the software system for a resource descriptor having a set of attributes that match the [information that describes] description of the desired resource;

updating a list in the flexible binding of references to resource descriptors in the repository that match the [information that describes] description of the desired resource.

27. The method of claim 22, wherein the step of resolving

the [task-specific] local name comprises the step of removing from a list in the flexible binding any references to resource descriptors in a repository of the software system that correspond to resources that are not currently available.

30. The method of claim 22, wherein the message specifies a [task-specific] name space that holds the flexible binding.

35. The method of claim 22, wherein the step of resolving the [task-specific] local name comprises the step of resolving the [task-specific] local name using a reference to a resource descriptor in a repository of the software system for each of the one or more available resources in the flexible binding in response to a binding-type indicator in the message that specifies a tight binding and using a specified arbitration policy to select one of the references.